

ATTORNEY DOCKET NO.  
069204.0163

07-15-02

PATENT APPLICATION  
09/719,591

2633

RS

#

8

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED 7-17-02

JUL 17 2002

Technology Center 2600

Re application of:

Mohammed N. Islam et al.

Serial No.:

09/719,591

Filing Date:

June 16, 1999

Title:

FIBER-OPTIC COMPENSATION FOR DISPERSION, GAIN  
TILT, AND BAND PUMP NONLINEARITY

Assistant Commissioner  
for Patents  
Washington, DC 20231

Dear Examiner:

"EXPRESS MAIL"

Express Mailing Label Number  
EL 953699986 US

Date of Deposit July 12, 2002

I hereby certify that this paper or fee is  
being deposited with the United States  
Postal Service "Express Mail Post Office  
to Addressee" service under 37 CFR 1.10  
on the date indicated above and is  
addressed to the Assistant Commissioner  
for Patents, Washington, D.C. 20231.

*Willie Jiles*  
Willie Jiles

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Applicants respectfully request, pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, that the references listed on the attached PTO-1449 form be considered and cited in the examination of the above-identified patent application. Copies of the references are enclosed for the convenience of the Examiner. No representation is made that a search has been made, that the references are material to the patentability of the present application, or that the references qualify as prior art.

Applicants believe that this Supplemental Information Disclosure Statement has been filed before the mailing date of the first Office Action in this case. Pursuant to 37 C.F.R. § 1.97(b), Applicants believe that no fee is due. The Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

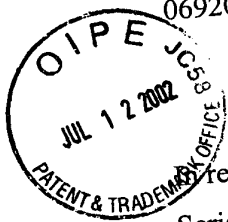
Respectfully submitted,

Baker Botts L.L.P.  
Attorneys for Applicants

*Douglas M. Kubehl*  
Douglas M. Kubehl  
Reg. No. 41,915

Date: July 12, 2002

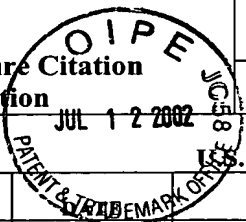
DAL01 684440 1



PTO-1449		Application No. <b>10/007,643</b>		Applicant(s) <b>Mohammed N. Islam</b>		
<b>Information Disclosure Citation In an Application</b>		Docket Number <b>069204.0175</b>		Group Art Unit		
				Filing Date <b>November 6, 2001</b>		
<b>U.S. PATENT DOCUMENTS</b>						
	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A	4,616,898	10/14/1986	Hicks, Jr.	350	96.15	09/28/1983
B	4,699,452	10/13/1987	Mollenauer et al.	350	96.16	10/28/1985
C	4,932,739	06/12/1990	Islam	350	96.15	09/25/1989
D	4,995,690	02/26/1991	Islam	350	96.15	04/24/1989
E	5,020,050	05/28/1991	Islam	370	4	10/13/1989
F	5,078,464	01/07/1992	Islam	385	122	11/07/1990
G	5,101,456	03/31/1992	Islam	385	27	11/07/1990
H	5,115,488	05/19/1992	Islam et al.	385	129	05/10/1991
I	5,224,194	06/29/1993	Islam	385	122	04/02/1991
J	5,369,519	11/29/1994	Islam	359	173	02/05/1993
K	5,485,536	01/16/1996	Islam	385	31	10/13/1994
L	5,559,920	09/24/1996	Chraplyvy et al.	385	123	03/01/1995
M	5,623,508	04/22/1997	Grubb et al.	372		02/12/1996
N	5,629,795	05/13/1997	Suzuki et al.	359		01/1995
O	5,664,036	09/02/1997	Islam	385	31	10/12/1995
P	5,673,280	09/30/1997	Grubb et al.	372	3	02/12/1996
Q	5,778,014	07/07/1998	Islam	372	6	12/23/1996
<b>FOREIGN PATENT DOCUMENTS</b>						
R	98/42088 A1	24.09.1998	WO	H04B	10/17	X
S	0 903 877 A2	24.03.1999	EP	H04B	10/18	X
T	99/66607 A2	23.12.1999	WO	H01S		X
U	00/49721 A2	24.08.2000	WO	H04B		X
V	1 054 489 A2	22.11.2000	EP	H01S	3/067	X
<b>DOCUMENT (Including Author, Title, Source, and Pertinent Pages)</b>						<b>DATE</b>
W	Hansen et al., "Repeaterless transmission experiment employing dispersion," 21st European Conference on Optical Communication, Vol. 2, 1 page					09/17-21/1995
X	Nissov et al., "100 Gb/s (10x10Gb/s) WDM Transmission Over 7200 km Using Distributed Raman Amplification," European Conference on Optical Communications, paper PD-9, pp. 9-12					09/1997
Y	Hansen et al., "Loss compensation in dispersion compensating fiber modules by Raman amplification," Optical Fiber Conference OFC'98, paper TuD1, Technical Digest, San Jose, CA, pp. 20-21					02/1998
Z	Lee et al., "Bidirectional transmission of 40 Gbit/s WDM signal over 100km dispersion shifted fibre," Electronics Letters, Vol. 34, No. 3, pp. 294-295					02/05/1998
AA	Okuno et al., "Generation of Ultra-Broad-Band Supercontinuum by Dispersion-Flattened and Decreasing Fiber," IEEE Photonics Technology Letters, Vol. 10, No. 1, pp. 72-74					01/1998
BB	Masuda et al., "Ultrawide 75-nm 3-dB Gain-Band Optical Amplification with Erbium-Doped Fluoride Fiber Amplifiers and Distributed Raman Amplifiers," IEEE Photonics Technology Letters, Vol. 10, No. 4, pp. 516-518					04/1998
CC	Emori et al., "Less than 4.7 dB Noise Figure Broadband In-line EDFA with A Raman Amplified-1300 ps/nm DCF Pumped by Multi-channel WDM Laser Diodes," OSA Conference, paper PD3-1-5, Vail, CO					07/1998
DD	Rotwitt et al., "Distributed Raman Amplifiers for Long Haul Transmission systems," LEOS, pp. 251-252					12/1998
EE	Grubb et al., "Detailed analysis of Raman amplifiers for long-haul transmission," OFC Technical Digest, pp. 30-31					1998
FF	Kawai et al., "Ultrawide, 75-nm 3-dB gain-band optical amplifier utilizing erbium-doped fluoride fiber and Raman fiber," OFC Technical Digest, pp. 32-34					1998
<b>EXAMINER</b>					<b>DATE CONSIDERED</b>	
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.						

U.S. PATENT AND TRADEMARK OFFICE

PTO-1449		<b>Information Disclosure Citation</b> <b>In an Application</b>			Application No. <b>09/719,591</b>		Applicant(s) <b>Mohammed N. Islam et al.</b>		
		Filing Date <b>June 16, 1999</b>			Group Art Unit				
		Patent Number <b>09/204,0163</b>							
<b>U.S. PATENT DOCUMENTS</b>									
		DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE		
	A	4,616,898	10/14/1988	Hicks, Jr.	350	96.15	09/28/1983		
	B	4,699,452	10/13/1987	Mollenauer et al.	350	96.16	10/28/1985		
	C	4,932,739	06/12/1990	Islam	350	96.15	09/25/1989		
	D	4,995,690	02/26/1991	Islam	350	96.15	04/24/1989		
	E	5,020,050	05/28/1991	Islam	370	4	10/13/1989		
	F	5,078,464	01/07/1992	Islam	385	122	11/07/1990		
	G	5,101,456	03/31/1992	Islam	385	27	11/07/1990		
	H	5,115,488	05/19/1992	Islam et al.	385	129	05/10/1991		
	I	5,224,194	06/29/1993	Islam	385	122	04/02/1991		
	J	5,369,519	11/29/1994	Islam	359	173	02/05/1993		
	K	5,485,536	01/16/1996	Islam	385	31	10/13/1994		
	L	5,559,920	09/24/1996	Chraplyvy et al.	385	123	03/01/1995		
	M	5,629,795	05/13/1997	Suzuki et al.	359	337	08/31/1995		
	N	5,664,036	09/02/1997	Islam	385	31	10/12/1995		
	O	5,778,014	07/07/1998	Islam	372	6	12/23/1996		
<b>FOREIGN PATENT DOCUMENTS</b>									
		DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION		
	P	0 421 675 A2	10.04.1991	EP	H04B	10/16	X		
	Q	0 9 197452 A	31.07.1997	JP	G02F	1/35	X		
	R	98/42088 A1	24.09.1998	WO	H04B	10/17	X		
	S	0 903 877 A2	24.03.1999	EP	H04B	10/18	X		
	T	99/66607 A2	23.12.1999	WO	H01S		X		
	U	00/49721 A2	24.08.2000	WO	H04B		X		
	V	1 054 489 A2	22.11.2000	EP	H01S	3/067	X		
<b>DOCUMENT (Including Author, Title, Source, and Pertinent Pages)</b>									
	W	Hansen et al., "Loss compensation in dispersion compensating fiber modules by Raman amplification," Optical Fiber Conference OFC'98, paper TuD1, Technical Digest, San Jose, CA, pp. 20-21						02/1998	
	X	Lee et al., "Bidirectional transmission of 40 Gbit/s WDM signal over 100km dispersion shifted fibre," Electronics Letters, Vol. 34, No. 3, pp. 294-295						02/05/1998	
	Y	Okuno et al., "Generation of Ultra-Broad-Band Supercontinuum by Dispersion-Flattened and Decreasing Fiber," IEEE Photonics Technology Letters, Vol. 10, No. 1, pp. 72-74						01/1998	
	Z	Rotwitt et al., "Distributed Raman Amplifiers for Long Haul Transmission systems," LEOS, pp. 251-252						12/1998	
	AA	Grubb et al., "Detailed analysis of Raman amplifiers for long-haul transmission," OFC Technical Digest, pp. 30-31						1998	
	BB	Kawai et al., "Ultrawide, 75-nm 3-dB gain-band optical amplifier utilizing erbium-doped fluoride fiber and Raman fiber," OFC Technical Digest, pp. 32-34						1998	
	CC	Emori et al., "Less than 4.7 dB Noise Figure Broadband In-line EDFA with A Raman Amplified-1300 ps/nm DCF Pumped by Multi-channel WDM Laser Diodes," OSA Conference, paper PD3-1-5, Vail, CO						07/1998	
	DD	Becker et al., "Erbium Doped Fiber Amplifiers Fundamentals and Technology," Academic Press, pp. 55-60						1999	
	EE	Yun et al., "Dynamic Erbium-Doped Fiber Amplifier Based on Active Gain Flattening with Fiber Acoustooptic Tunable Filters," IEEE Photonics Technology Letters, Vol. 11, No. 10, pp. 1229-1231						10/1999	
	FF	Nissov et al., "Rayleigh crosstalk in long cascades of distributed unsaturated Raman amplifiers," Electronics Letters, Vol. 35, No. 12, pp. 997-998						06/10/1999	
	GG	Mikkelsen et al., "160 Gb/s TDM Transmission Systems," ECOC, 4 pages						2000	
EXAMINER					DATE CONSIDERED				
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.									
<b>U.S. PATENT AND TRADEMARK OFFICE</b>									

PTO-1449		Application No. <b>09/719,591</b>		Applicant(s) <b>Mohammed N. Islam et al.</b>		
<b>Information Disclosure Citation In an Application</b>		Docket Number <b>069204.0163</b>	Group Art Unit	Filing Date <b>June 16, 1999</b>		
 <b>U.S. PATENT DOCUMENTS</b>						
	DOCUMENT NO.	NAME	CLASS	SUBCLASS	FILING DATE	
A	5,790,300	Zediker et al.	359	334	10/15/1996	
B	5,796,909	Islam	385	147	02/14/1996	
C	5,815,518	Reed et al.	372	6	06/06/1997	
D	5,905,838	Judy et al.	385	123	02/18/1998	
E	5,959,750	Eskildsen et al.	359	134	06/06/1996	
F	5,978,130	Fee et al.	359	341	09/16/1997	
G	6,008,933	Grubb et al.	359	341	08/19/1997	
H	6,043,927	Islam Technology Center 2600	359	332	01/16/1998	
I	6,052,393	Islam	372	6	07/07/1998	
J	6,081,366	Kidorf et al.	359	341	08/28/1997	
K	6,088,152	Berger et al.	359	334	03/08/1999	
L	6,101,024	Islam et al.	359	334	03/24/1998	
M	6,151,160	Ma et al.	359	341	10/05/1998	
N	6,163,636	Stentz et al.	385	24	01/19/1999	
O	6,181,464 B1	Kidorf et al.	359	334	12/01/1998	
P	6,191,854 B1	Grasso et al.	359	124	07/15/1996	
<b>FOREIGN PATENT DOCUMENTS</b>						
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
Q						
R						
<b>DOCUMENT (Including Author, Title, Source, and Pertinent Pages)</b>						<b>DATE</b>
S	Nielsen et al., "3.28 Tb/s (82x40 Gb/s) transmission over 3 x 100 km nonzero-dispersion fiber using dual C- and L-band hybrid Raman/Erbium-doped inline amplifiers," OFCC 2000, pp. 1229-1231					03/7-10/2000
T	Pending Patent Application; USSN 09/811,067, entitled "Method and System for Reducing Degredation of Optical Signal to Noise Ratio"					Filed 03/16/2001
U	Pending Patent Application; USSN 09/811,103; entitled "System and Method for Wide Band Raman Amplification"					Filed 03/16/2001
V	Pending Patent Application; USSN 09/916,454; entitled "System and Method for Controlling Noise Figure"					Filed 07/27/2001
W	Pending Provisional Patent Application; USSN 60/310,147; entitled "Combined Laser Diode Raman Pumps; Active Gain Equalizers; Bi-Directional Raman Amplifiers"					Filed 05/00/2002
X	Pending Patent Application; USSN 10/100,588; entitled "Electro-Absorption Based Modulation"					Filed 03/15/2002
Y	Pending Patent Application, USSN 09/768,367, entitled "All Band Amplifier"					Filed 01/22/2001
Z	Pending Patent Application; USSN 09/766,489; entitled "Nonlinear Polarization Amplifiers in Nonzero Dispersion Shifted Fiber"					Filed 01/19/2001
AA	Pending Patent Application; USSN 09/800,085; entitled "Dispersion Compensating Nonlinear Polarization Amplifier"					Filed 03/05/2001
BB	Pending Patent Application; USSN 09/760,201; entitled "Low-Noise Distributed Raman Amplifier Using Bi-Directional Pumping Using Multiple Raman Orders"					Filed 01/12/2001
CC	Pending Patent Application; USSN 09/765,972; entitled "S+ Band Nonlinear Polarization Amplifiers"					Filed 01/19/2001
EXAMINER					DATE CONSIDERED	
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.						

U.S. PATENT AND TRADEMARK OFFICE

PTO-1449

**Information Disclosure Citation  
In an Application**

Application No.

Applicant(s)

09/719,591

Mohammed N. Islam et al.

Pocket Number

Group Art Unit

Filing Date

069204.0163

June 16, 1999

**PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A	6,191,877 B1	02/20/2001	Chraplyvy et al.	359	124	07/15/1996
B	6,236,496 B1	05/22/2001	Yamada et al.	359	341	12/10/1997
C	6,239,902 B1	05/29/2001	Islam et al.	359	334	05/05/2000
D	6,239,903 B1	05/29/2001	Islam et al.	359	337	04/25/2000
E	6,310,716 B1	10/30/2001	Evans et al.	359	334	08/18/2000
F	6,335,820 B1	01/01/2002	Islam	359	334	12/23/1999
G	6,356,384 B1	03/12/2002	Islam	359	334	04/11/2000
H	6,359,725 B1	03/19/2002	Islam	359	334	12/23/1999
I	6,370,164 B1	04/09/2002	Islam	372	6	04/17/2000
J	6,374,006 B1	04/16/2002	Islam et al.	385	15	03/19/1999
K	6,381,391 B1	04/30/2002	Islam et al.	385	123	12/03/1999

**FOREIGN PATENT DOCUMENTS**

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
L						
M						

**DOCUMENT (Including Author, Title, Source, and Pertinent Pages)**

	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
N	Pending Patent Application; USSN 10/003,199; entitled "Broadband Amplifier and Communication System"	Filed 10/30/2001
O	Pending Patent Application; USSN 10/007,643; entitled "Multi-Stage Optical Amplifier and Broadband Communication System"	Filed 10/30/2001
P	Pending Patent Application; USSN 10/014,839; entitled "Multi-Stage Optical Amplifier and Broadband Communication System"	Filed 12/10/2001
Q	Pending Patent Application; USSN 09/990,142; entitled "Broadband Amplifier and Communication System"	Filed 11/20/2001
R	Pending Patent Application; USSN 10/100,591; entitled "System and Method for Managing System Margin"	Filed 03/15/2002
S	Pending Patent Application; USSN 10/100,587; entitled "Fiber Optic Transmission System with Low Cost Transmitter Compensation"	Filed 03/15/2002
T	Pending Patent Application; USSN 10/116,487; entitled "Fiber Optic Transmission System for a Metropolitan Area Network"	Filed 04/03/2002
U	Pending Patent Application; USSN 10/100,589; entitled "System and Method for Dispersion Compensation in an Optical Communication System"	Filed 03/15/2002
V	Pending Patent Application; USSN 10/100,700; entitled "Rack System for an End Terminal in an Optical Communication Network"	Filed 03/15/2002
W		
X		
Y		
Z		
AA		
BB		
CC		
DD		
EE		
FF		
GG		
HH		

**RECEIVED**
**JUL 17 2002**
**Technology Center 2600**

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

**U.S. PATENT AND TRADEMARK OFFICE**